

**Maricopa Association of Governments
Regional Aviation System Plan Update Status Report**

March 8, 2002

INTRODUCTION

Federal regulations call for the Maricopa Association of Governments (MAG) to conduct regional aviation system planning in the metropolitan area with the objective of meeting the long term air transportation needs of the public in a safe and efficient manner. The Plan is a long-range strategic plan that focuses upon the major airport improvements and aviation policies that are needed to meet future demand. It is used as a blue-print to guide investment decisions and policy actions for the development of the airport system.

MAG is the regional planning agency for the Phoenix metropolitan area and represents 24 cities and towns, two Indian Communities and Maricopa County. MAG has been conducting regional aviation system planning for 25 years, having adopted plans in 1979, 1986 and 1993. The Agency is now in the midst of updating the Regional Aviation System Plan (RASP). To date, an airport inventory has been conducted, forecasts prepared, a demand capacity analysis drafted, and potential alternatives for meeting future demand outlined. These elements are summarized in the following sections.

The MAG RASP Update 2000 is being undertaken by the consulting firm of Wilbur Smith & Associates, managed by MAG staff, and guided by an aviation policy committee made up of elected officials of our MAG member agencies. An important component of the planning effort is soliciting input from the public, aviation interest groups and other interested parties. We are particularly interested in obtaining input during the early phases of the planning process on the airport development alternatives that we should be investigating and the criteria we should use to evaluate those alternatives.

INVENTORY

An inventory of 16 airports in the region was prepared in order to document the existing facilities available and their traffic handling capabilities. Careful attention is also being focused on Luke Air Force Base to ensure that the development of the civilian airport system does not impair Luke's mission. In addition, a survey of general characteristics of Maricopa County was prepared to facilitate an understanding of the environment in which the airports operate. Although there are 46 airports in the region, including private use facilities, the system plan focuses on the 16 with the highest traffic levels and the greatest importance to the public. These airports are listed below.

- | | |
|-----------------------|----------------------------|
| • Buckeye Municipal | • Phoenix Sky Harbor |
| • Carefree | • Pleasant Valley |
| • Chandler | • Memorial Airfield |
| • Estrella Sailport | • Mesa Falcon Field |
| • Gila Bend | • Scottsdale |
| • Glendale Municipal | • Stellar Airpark |
| • Phoenix Deer Valley | • Wickenburg |
| • Phoenix-Goodyear | • Williams Gateway Airport |

FORECASTS

The MAG RASP Update has developed a set of forecasts of air passenger boardings, general aviation based aircraft, aircraft operations and air cargo to the year 2025. For the region overall the 2000 and 2025 activity levels are noted below:

Table 1
Base Year and Forecasts of Aviation Activity
in the MAG Region

Measure of Demand	Activity in 2000	Activity in 2025
Air Passenger Boardings		
Take-offs and Landings	17.6 million	31.6 to 39.6
Based aircraft	2.4 million	4.4 million
Tons of Air Cargo Enplaned	4,300	7,600
	374,000	1.4 - 2.4 million

Source: Maricopa Association of Governments, 2001.

DEMAND/CAPACITY ANALYSIS

To identify the need for potential improvements in the MAG Region, the MAG RASP Update has compared the forecasted traffic level at each airport with its yearly aircraft traffic handling capability, known as Annual Service Volume (ASV). Table 2 below, compares the forecasted traffic with the Annual Service Volume. Where the traffic exceeds the Annual Service Volume, it is usually recommended that a capacity expansion project be considered at the airport where feasible. Some airport sponsors may not choose to expand their facility because they are physically and or fiscally constrained.

Airport	Annual Service Volume	2025 Airport Forecast
Buckeye	315,560	215,220
Chandler	460,000	514,500
Estrella Sailport	120,000	16,500
Gila Bend	212,797	57,800
Glendale	257,972	197,000
Memorial	100,000	5,500
Mesa Falcon Field	443,000	472,100
Phoenix-Deer Valley	606,000	640,600
Phoenix-Goodyear	304,916	334,200
Phoenix Sky Harbor	660,000	673,000 - 841,000
Pleasant Valley	120,000	134,300
Scottsdale	200,000	262,600
Sky Ranch Carefree	174,000	13,000
Stellar	286,700	78,400
Wickenburg	245,000	38,100
Williams Gateway	410,000	420,300

ALTERNATIVES

MAG is currently in the process of identifying a set of airport development alternatives for meeting future demand. Wilbur Smith and Associates have drafted four prototype alternatives and identified the some criteria used to evaluate them. MAG is seeking input from the public on the definition and evaluation of these alternatives. The potential alternatives and evaluation criteria are noted below.

1. Do-Nothing - Status quo alternative
 - Assumes that projects programmed in ADOT's most recent CIP are implemented.
 - Provides a base case for comparison to other alternative scenarios.
 - Assumes existing regulations, ordinances, technology, and facilities remain in place
 - Assumes implementation of Northwest 2000
2. Improved Technology
 - Most significant deficiency is operational capacity at many airports.
 - FAA's capacity benchmark analysis indicates a potential increase in operational capacity due to the implementation of technological and procedural improvements anticipated over the next 10 years
 - Improvements to technology will be evaluated as they relate to each airport
 - Most relevant to commercial service airports in system
3. Maximized Development of Existing System
 - Evaluate which airports can accommodate additional runways to improve the region's operational capacity, a key deficiency of the existing system, including Phoenix-Sky Harbor's fourth runway
 - Recognize some existing constraints and analyze the feasibility of improvements (Scottsdale & Mesa)
 - Assume all projects identified in ADOT's most recent CIP are implemented.
 - Assume all airports will meet standards and will develop needed facilities to accommodate projected demand through 2025
 - Determine policies in place that restrict airport development in the region
4. New Airport Development (general aviation and/or commercial service)
 - Assumes no new runways at existing airports
 - Will review previous study results for proposed new airports in Northwest, Southeast, and Northeast portions of the region
 - Reassign portion of demand from other airports to new airport(s) to determine facility needs of existing airports

The alternatives will be evaluated potentially based on the following factors:

- Environmental consequences (especially noise and air quality impacts, as determined on system planning level of detail)
- Cost of alternative
- Delay impacts (improvement and costs of delay)
- User convenience
- Access improvement needs
- Airspace compatibility (special attention will be focused upon the airspace impacts of projects on Luke Air Force Base to ensure that it can carry out its mission).
- Ease of implementation
- Title VI impacts (as available from existing documentation)